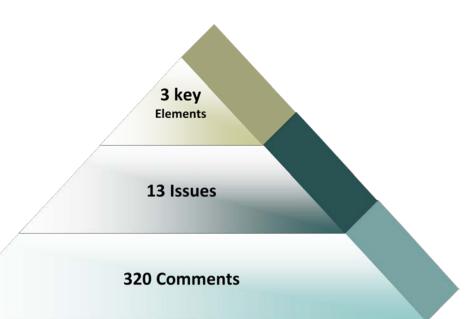
#### **Outline**:

# Terminology- Comments, Issues, Key Elements

- 30 Site reviews over the past 5 years (2005→2009)
- 320 Total Recommendations (Comments)
- 320 Comments → 13 Issues
- 13 Issues → 3 Key Elements:
  - 1. Cost
  - 2. Effectiveness
  - 3. Policies and Guidance



#### Results:



# Major Findings- Common Issues and Board's Mission

- What are the most common types of issues raised by the NRRB?
  - Remedy Performance (97%) of total sites (i.e. 29/30 sites)
  - ARARs (83%)
  - Cost (80%)
- How does the distribution of issues compare to the Board's mission areas of cost-effectiveness and compliance with current law, regulation and guidance?
  - Policies and Guidance: 50% of total comments

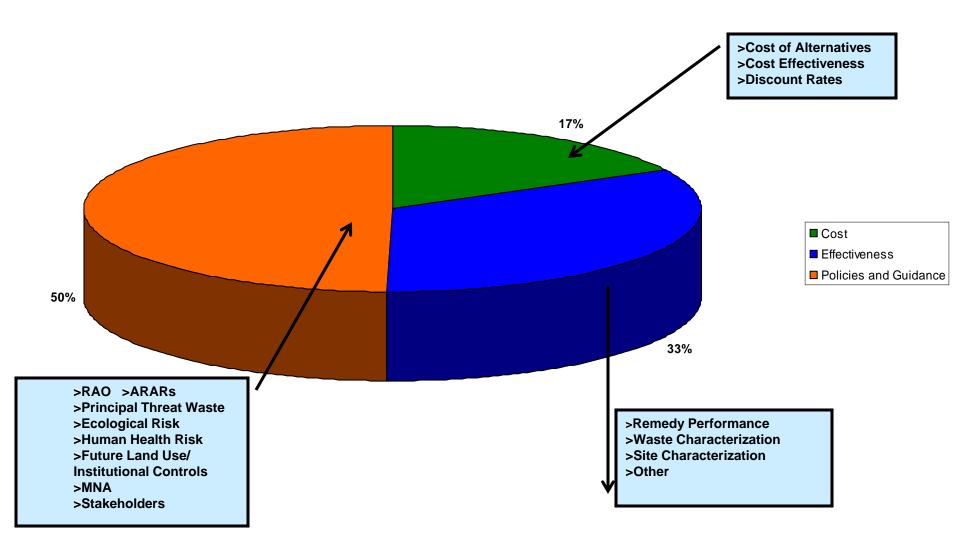
#### Results:



# Major Findings- Regional and Temporal Variations distributed over the three <u>key elements</u>

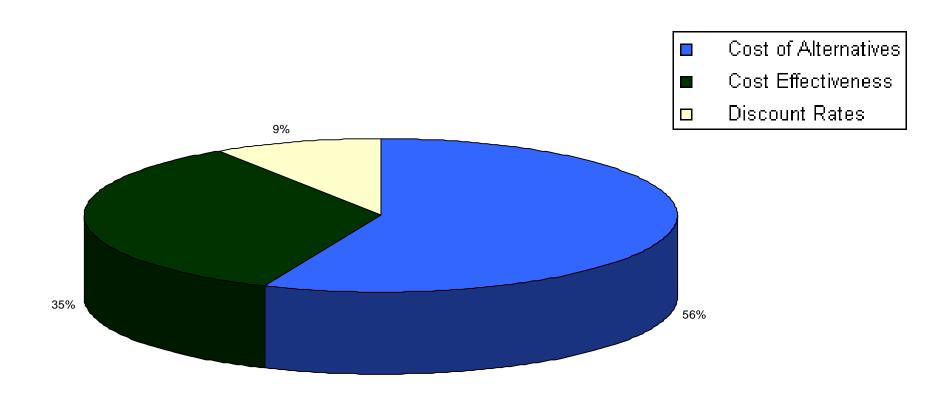
- How do the comments vary between regional offices?
  - Cost: Region 8 (44% of Region 8 comments)
  - Effectiveness: Region 1 (54% of Region 1 comments)
  - Policies and Guidance: Region 2 and 5 (63% of Region 2 and 5 comments)
  - The Regional profiles had similar distributions of the 13 issues.
- How do the comments vary over time?
  - The issues and elements fluctuated with no apparent trend throughout the 5 years.

**Summary of Key Elements:** Policies and Guidance dominated the total comments at 50%.



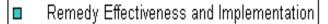


**Cost Breakdown:** Cost of Alternatives was the most frequent of the cost comments at 56%.

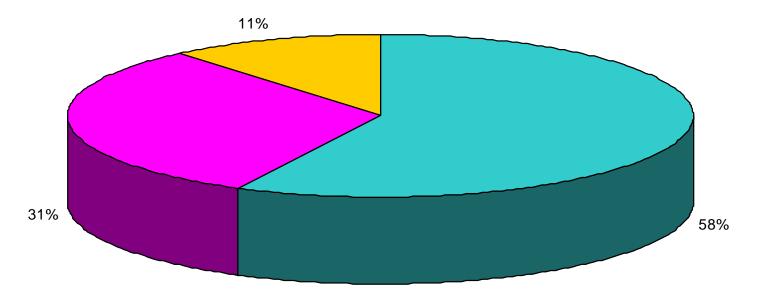




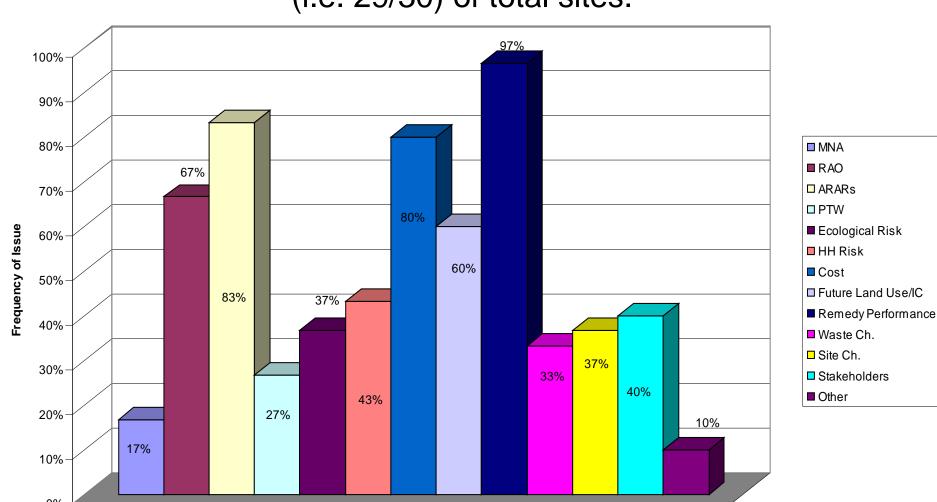
Effectiveness and Implementation was the most frequent RP comment (58%)



- New Remedial Options
- Monitoring



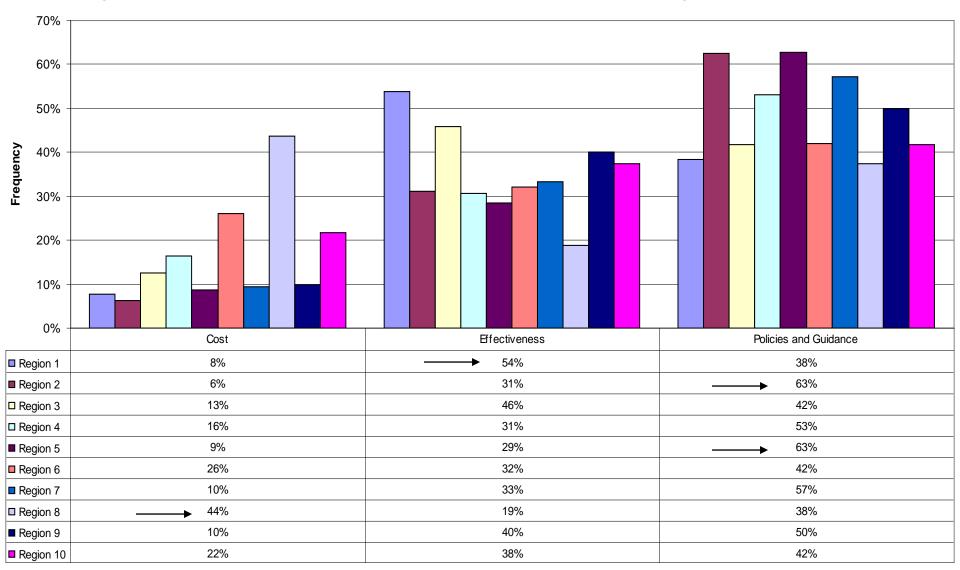
Frequency of Issues distributed over total number of sites: Remedy performance governed, occurring at 97% (i.e. 29/30) of total sites.



Issue

# Frequency of Key Elements across Regions: Top

Region(s) for- cost: 8, effectiveness: 1, Policies and guidance: 2 and 5.





## Conclusions and Recommendations

#### **Conclusions:**

- Of the 13 issues, Remedy Performance (RP) was the most common. (Occurring at 25% of the total comments and 97% (29/30) of the sites reviewed during 05-09 time period).
- Of the 3 Key elements, Policies and Guidance was the most common. (Occurring at 50% of the total comments during 05-09 time period)



### Sample Board Recommendations

Site	Recommendation	Issue	Key Element
Sutton Brook (2007) Region 1	"The Board recommends that the Region conduct a complete evaluation of natural attenuation at the site, for all contaminants of concern across the range of geochemical settings that could be encountered, before MNA is included as part of the preferred alternative."	MNA	Policies & Guidance
Onondaga Lake (2005) Region 2	"The Board recommends that the decision document clarify hw the preferred alternative best meets the remedial action objectives for the site."	RAO	Policies & Guidance
Picayune Wood (2005) Region 4	"The Region should describe in the decision documents what the ARARs are for the site and how they will be met or waived."	ARARs	Policies & Guidance
Grants Chlorinated (2006) Region 6	"Given the high costs of air monitoring in relation to the mitigation systems, the Board recommends that the Region consider expanding the installation of mitigation systems to all residences potentially impacted by indoor air contamination."	Cost	Cost
Jacobsville (2009) Region 5	"The Board recommends that the Region show that the groundwater resources are non-potable and any resulting contamination would not affect down-gradient receptors."	Waste Characterization	Effectiveness
Omaha Lead (2008) Region 7	"The Board recommends that future decision documents include a comprehensive description of the site and the immediately adjacent areas, including any sampling information and description of State cleanup activities."	Site Characterization	Effectiveness